



E S S A Y

ON THE

RAISING AND MANAGEMENT

OF

H E D G E S.

Y. A. S. E.
OF THE
RAISING AND MANAGEMENT
OF
H. E. D. G. E. S.



9169

142
a

A PRACTICAL
E S S A Y
ON THE RAISING AND MANAGEMENT OF THE
Cratægus Oxyacantha;
OR,
Common White Thorn for Hedges:

CONTAINING
The most *rational* and *speedy* Methods of *Planting* and *Rear-
ing* what are generally called QUICKSETS, and of their
subsequent Treatment till brought to the State of *beauti-
ful* and *useful* FENCES:

ALSO,
Of Pruning Forest-Trees,
Which are planted in Hedge-rows with the QUICKS.

BY ROBERT CALLENDER,
Botanist, Superintendant in Gardening, &c. &c.

TO WHICH ARE ADDED,
OBSERVATIONS
On the General Method of Raising FENCES, as
hitherto practised.

Shewing the Absurdity and ill Success thereof, in a Letter
to the Author, from a Person who has given consider-
able Attention to the Subject.

The Whole intended for the Use of the *Im-
provers* of Commons, and the *Practical Planter*.

NEWCASTLE UPON TYNE:
PRINTED BY L. DINSDALE, IN THE FLESH-MARKET.

MDCCLXXXV.





C O N T E N T S.

PAGE.

<i>A Botanical Description of the com- mon White Thorn</i>	<i>I</i>
<i>Proper Choice of Seeds for Hedges</i>	<i>2</i>
<i>Preparation for Sowing</i>	<i>3</i>
<i>How propagated by Seed</i>	<i>4</i>
<i>Transplanting how, &c.</i>	<i>5</i>
<i>Preparing the Plants</i>	<i>7</i>
<i>Preparation for Planting for Good</i>	<i>8</i>
<i>The Time or Season for Planting</i>	<i>9</i>
<i>The common erroneous Method of Treat- ment</i>	<i>10</i>
<i>Scouring, Dressing, and Weeding</i>	<i>15</i>
<i>Cutting</i>	<i>17</i>
<i>Cutting down old Hedges</i>	<i>20</i>
<i>Manner how</i>	<i>21</i>

Remarks

Remarks on the Management of Forest-Trees 23

Observations on the general Method of Raising Fences, in a Letter to the Author 27





A SHORT
E S S A Y
ON THE ART OF
REARING AND PLANTING QUICKS,
AND
PRUNING FOREST-TREES.

OF THE CRATÆGUS OXYACANTHA;
OR, COMMON WHITE THORN.

THE *Cratægus Oxyacantha*, or common white thorn, * is the plant commonly used for fences; it will grow from ten to thirty feet in height, when planted at proper distances, either in hedges or plantations.

A HEDGES

* Linnæus *Gener. Plantar.* p. 683. *Icosandria Digynia*, cl. 12. ord. 2.—Stem crooked; leaves smooth, numerous, irregular, divided, and ferrated: flowers white, in a kind of umbels; May; in woods and hedges.

HEDGES may be raised, either by the seed, or plants from the nursery. The choice of the seed, time of gathering, and preparation, are material for consideration.

IN the north of England, the haw or fruit of the white thorn is seldom ripe until the month of November. There are a variety of species or sizes of them; and by mixing the different species promiscuously together, without severing them and sowing each species by itself, is the cause of fences being irregular.

THE gatherer should be very particular in having the haws well ripened, and, as nearly as can be, of one sort; the smallest seeds are by far the best: after being gathered, they are to be laid in a shady place, and spread, adding to them a little sand, or fine soil, to prevent their being injured by heating; let them remain spread till the pulpy or soft part of the fruit is wasted or dried; then lay them together in a heap; and cover them with fine dry earth,



earth, about three or four inches thick; there to remain until a state of germination takes place, which generally happens about February twelve months after their being gathered.

PREPARATION FOR SOWING.

MODE FIRST.

THE land that has been used for some time in growing kitchen stuff, or a light soil, is the best for raising the plants; but if you have not a choice of land of this description, the land intended for the reception of the seeds ought to be well wrought, and employed in the growing of *turnips*, *potatoes*, or any leguminous plant, previous to the sowing of the seeds; and then again turned up by the spade, clearing it of weeds, and making it level and fine. After the ground has been prepared as above, divide the same into beds of three feet and an half in breadth, with alleys eighteen inches wide between each bed, for the easier cleaning and covering the seed; then push over from the sur-

face of the beds a little of the soil, with the head of the rake, into the alleys, and make the bed level, by pressing it gently with a spade ; then sow your seeds equally with care, so that they may not rise in clusters, but be nearly an inch from each other, observing, before sowing, to separate them well with the hands and use of sand : after being so sown, draw back the earth from the alleys, and so much more from thence with the spade, that the covering upon the seeds may be half an inch, or thereabouts ; deep covering being very injurious to most kinds of seed.

HOW PROPAGATED BY SEED IN DRILLS.

MODE SECOND.

YOUR land ought to be cultivated and prepared in the same manner as when for broadcast, and made fine by raking. Divide your land into drills, by a small hoe, at the distance of fifteen inches from each other ; then sow
your

your seeds in the drills, and cover them the same depth as those in beds. This way of treatment I prefer to the other in beds, not only as they have a more free admission of air, but are much easier cleaned between drills, in the succeeding year, or Spring following, when the plants have come up; and if they appear too thick, you ought to thin them, by carefully drawing out the largest or strongest plants, without injury to the roots; and at the same time cut the roots of the remaining ones with a spade, about six or seven inches below the surface. This is of great service to them, by making them put out fresh fibres, and will prepare them for being planted out for good.

TRANSPLANTING HOW.

BE mindful to prepare, clean, and rake your ground fine for large drills; take up your plants, without injuring the roots; cut off such part of the fibres as have been wounded, but

no

no more ; * make your drills with a spade ; each drill to be of the same depth that the roots are in the seed-bed, and at the distance of eighteen inches from each other ; the plants are to be placed upright in the drills, with the hand, nearly four inches apart ; and by a mason's trowel rake the earth upon the roots, and dress the ground by a rake between each drill ; if the weather happens to be dry, the roots of the plants should be plunged in water before they are planted, and afterwards watered, to fix the roots. No part of the tops ought to be taken off, that part of the plant being the principal agent in vegetation. In this situation the plants should remain two years, † and then be thinned, by taking away every other plant ; those that remain should have their lower roots cut with a spade, and the branches sided with a pair of sheers, and the alleys dug, cleaned, and

* Those plants of a year old are the best for transplanting ; the younger the better,

† After the first year, the plants should be cut down to make them spread at the bottom, in order to prepare them to be planted upright in the hedges, without further cutting.

and raked : By thinning, clipping, and dressing them every two years more ; digging, cutting, and gently stirring the roots, and cleaning the alleys, removing every other line occasionally, you may have plants of any size and strength fit for a fence instantly. See *Bouchier* upon PLANTING.

PREPARING THE PLANTS.

WHEN taken from the feed-bed, or drills, with care, for the purpose of planting out for good, they ought to be classed according to their different sizes, strength, and height, to grow in a regular manner ; being thus chosen, it will be a great saving in number and value ; for instead of planting ten in a yard, three, four, five, or six will be sufficient, and the fence will increase more in strength ; plants never are strong when crowded, and this is the reason why double hedges never resist so soon as single ones.



PRE-

PREPARATION FOR PLANTING FOR GOOD.

QUICKS do not like a wet soil, especially where the water is stagnated by a coarse clay : therefore examine your soil before you plant the hedge. But if the fence is to be made from east to west, and the soil inclinable to be wet, I prefer the south side for planting ; if dry, then the north side. The east aspect is the best, as the rising sun promotes vegetation. Wet ground must be raised higher, and the dry lower ; which, when attended to from one end of the intended fence to the other, will be of the greatest consequence in assisting the plants, so as to make the fence more regular, and become sooner fencible.

IN making the fence, the back part ought to be raised about four feet, for the placing of stake and rice ; and the front with the best soil, three feet in breadth ; and raised eighteen inches, for the quicks to be planted in the center ;

tre ; (the surface foil is the best for this purpose) and no part taken from the bottom of the ditch, which is too much the custom among ignorant labourers ; not knowing, that the nearer the surface, the richer the foil ; it being meliorated by the atmosphere, and consequently most active, and fittest to promote vegetation.

THE TIME OR SEASON FOR PLANTING.

FOR all hardy deciduous plants,* the Autumn is the best, provided your plants and foil are in a proper state. The month of October is a proper time, when you plant in a dry foil, but will not do in wet ; the Spring season appears to be the best time for such ; and your hedges must be raised higher above the surface, according to the nature of the foil.

THESE, and most other plants, do not like to be put much below the surface of ground

B

that

* Such as shed their leaves every autumn.

that is wet ; and the evil is generally increased, by scouring the hedges, and adding so much unnecessary earth upon the roots, that they are deprived of the genial heat of the sun and air, the chief principles of vegetation.

THE plants intended for use ought not to exceed three years old, and only such as have been transplanted, or those prepared in drills, or have stood very thin in the seedling-beds, and been treated as I have already mentioned.

PLANTS in general grow best when they are planted young ; and if we could depend upon the seed not failing, I recommend the seed itself to be sown in the hedges at once ; for all plants are more firmly fixed where they grow by the seed unremoved.

THE COMMON ERRONEOUS METHOD OF TREATMENT.

THE ignorant labourers pay little attention to the soil or situation, but prepare for
planting

planting and making a fence, by first setting out so much for a ditch, to form a kind of bank, and so much ground to be allowed for the dead fence to be made on, which is commonly composed of the turf, and earth taken from the ditch, &c. the top done with cuttings of thorns, with or without stakes.

BEFORE the quicks are planted, the planter has what they call a cockfod, or piece of turf, cut out of the surface, whereon he places the quicksets, first cutting them very short at the top and root, placing them nearly horizontal across the new hedge-row, or at least in such a manner as to form an angle of about twenty degrees with the horizon, and at such distances, that about ten quicks are put in a yard in length, *i. e.* nearly four inches apart from plant to plant, and afterwards throws the earth upon the roots, which earth is commonly taken out of the ditch at the bottom.

THE turf and earth so used form a declivity on one side, the other nearly upright,

made of turf, like a wall; the quicks are put at the bottom of the declivity, without allowing them any part of an horizontal plane to grow on; by which means the quicks are often covered so much by the falling of the earth from above, that they are under the necessity of taking some earth from them the first year they are planted, which the planter calls opening or uncovering the quicks; this frequently happens at a time when the plants begin to push out from the eyes that are left them for shoots, &c. and if it happens in dry weather, which is frequently the case, the buds of the plants are thereby injured very much.

THE above kind of treatment is ridiculous. Where is the necessity for *cutting the tops* and roots of the plants so much? and also, when prepared as I have directed for planting, why should they be put in an horizontal position? Nature says, they shall grow upright; therefore, plant them upright. Is it not most consistent with reason, that the top of any plant must be first influenced by the benefit of the
genial

genial rays of the sun, before the root? and if that be allowed, why cut off the heads of plants at the time of planting? It seems to me to be a contradiction to nature. Why are the plants put so near the bottom of the earth-fence? and should not the quicks, when grown up, be equally good on both sides? Is that ever the case as they are now planted? Is not the front the best, and that side next the earth-fence the worst? if so, what is the cause? Is it not the want of air that causes the side next the dyke to be much inferior to the other? and is not that side more subject to be hurt with weeds? These are facts; and the reason that the side of the hedge next the dyke not being so well furnished as the front, prevents the farmers from having the old fence taken away, when it might have been done in less time than ten years after planting, in case the quicks had been treated by proper planting, cleaning, siding, &c.

To remedy these evils, I propose to class your quicks, and plant them in an horizontal plane
in

in hedge-rows, and take off all the wounded fibres ; make a drill nearly in the centre of the horizontal plane, the same depth as when in the feeding beds, or drills ; if the weather be dry, plunge the roots in water, plant them upright, and cover the roots with a mason's trowel, and water them, to fix the roots ; observing to plant them as soon as possible, after their being removed from their beds, or drills ; air being very hurtful to the roots. In case your ground has been a long time in herbage, or never broken up, it will be advisable to add a little good manure at the bottom of the drill before the quicks are planted, and the manure covered with good soil : this will give a spur to the soil, and make it more active. I have also tried lime and turf-ashes with good effect.

If the quicks are planted at a proper distance from the dyke, in an horizontal plane, both sides will be alike.

ONE great objection that is made (but which I think a very simple one) of having the quicks
put

put at a greater distance from the dyke than they usually are, is, that the cattle are induced to tread upon that space where the quicks are planted. If a method could be found out, to have that effect on the farmer, to get him to remove his dykes from his quick hedges, in ten or twelve years after planting he would enjoy a great deal of his best sheltered ground at a very little expence, as the ground next his hedges is nothing but a nursery of weeds; and besides, save the expence that attends scouring, as they call it; and the earth so taken away would be of great service to improve his land.

SCOURING, DRESSING, AND WEEDING.

YOUR hedge should always be kept to the same height of the breasting, or horizontal plane, where the quicks are originally planted, but no higher. The Winter frosts occasion the breasting of the hedges to fall down, and if not repaired, the young roots of the quicks will be injured: The farmers therefore ought
every

every Spring to look at such hedges as have received damage, and scour the hedge, to make it the original height ; he should also yearly dress and weed all his hedges : the best time is about the months of June and July, before the seeds of the weeds are ripened ; and then burn the weeds, to prevent their ripening after taken up ; which many will do, such as the groundsel, to the great detriment of the land.

S C O U R I N G.

PRAY, why is the common method of scouring necessary ? Do the roots of the quicks require it ? How does it happen that the generality of trees of different kinds require no more earth to be put to their roots, after planting, than what were put to them at first ? May it not be observed, that the strongest quick hedges have the least earth to cover their roots ? How is it, that where the birds carry the haws, to get the pulp from them as food, that the feeds afterwards vegetate, and the plants become as strong (when kept from sheep, &c.)
as

as those planted in hedges? Does not nature point out the proper treatment of plants? Can we possibly have a better guide? Have the physicians any better rule in their profession? Does not the building up of turf to the bottom prevent them from being properly clothed with small branches? Does it not also lead the weeds, such as couch-grass, &c. into the middle of the hedge? The ill consequences of such treatment may be seen every where. May it not be reasonable to suppose, that the laying so much turf and earth more than the plants require, is the cause of a great many hedges becoming sickly? One certain mark of the plants being in a bad state of health is, that of their being covered with moss, and their leaves appearing yellow; which is frequently the case in clay-grounds, by planting too low, and want of draining.

C U T T I N G.

THE great want of attention to quicks for a series of years, without having any thing

C

done

done to them, is the principal reason that hedges become so unsightly and naked. The owner of a sudden, as if risen from a trance, cuts them all down to new spring it. Instead of suffering them to grow to twenty or thirty feet high, they ought not to exceed from six to nine feet, to make a proper fence; and if properly treated till they become fencible, and afterwards trimmed, sided, and topped, every three or five years, there then will be no occasion for cutting them down in the usual way; by allowing them to stand without trimming, &c. the quicks form into trees; and the tops growing in breadth, and overshadowing the bottom, they loose their under branches, and become open and unfencible.

THE quicks that are planted for a complete fence, ought not to be allowed to advance in height, but as the bottom is furnished. When a new hedge is planted, it ought not to be touched until the third year; then clip the sides, and form the top.

THE

THE top of the hedge ought only to form an edge, the bottom being left broad ; to be *bog-maned* at the top, and well fided.

WHEN a quick-hedge is treated in the manner already mentioned, there is no necessity for cutting, plashing, and scouring in the usual way.

THIS manner is surely preferable to the common treatment, and adds beauty to the country.

ONE thing more I beg leave to observe to the lovers of improvement, respecting the treatment of new quick-hedges ; which is, that of the placing the *rice-fence*, as it is called, much too near the quicks. The leaving sufficient room for the side next the rice, is not only necessary with respect to air which the plants require, but that of keeping all sorts of weeds, couch-grass, &c. from intermixing with the hedge.

CUTTING DOWN OLD QUICK- HEDGES.

CONTRARY to the usual method of cutting the old quick-fences, you ought first to prepare the old hedge for cutting down, by fiding it pretty close, and sawing the bole of the quick near half way through, a year or two before the intended cutting takes place ; by this means, many young shoots will spring at the bottom : the hedge therefore still remains a fence, until the young shoots get up, and the old wood prevents the cattle from eating the young.

THE best time for performing that work, I think, will be in April, at which time the top and root would be in a more active state than if cut sooner.

To cut off the top, before the sap is put in motion, must be against rearing up the fence so soon as it would do otherwise.

THE



THE MANNER OF CUTTING.

AFTER two or three years from the felling, cut the tree down to three feet from the root; and cut off such of the branches as are needful, with a saw, or an axe, upwards, very smooth, and sloping from the rays of the sun; which will prevent the wound from cracking, and will make it heal much better than if cut at random. The shorter and smoother the wound, the better it will heal; and the cuts made to face the north, will more readily heal than those made to face the south. Then clip the smaller branches with shears, clean your hedge from weeds, and stir the ground at the roots with a spade.

A YOUNG hedge does not suffer so much from cutting as an old one; which plainly shews the necessity of preserving as many young shoots as possible at the time of cutting; as the cutting of an old hedge is done in order to reduce the plants to the proper state for making a fence, which had been neglected before.

After

After once cutting down, why should it ever be the case again? Would it not be highly necessary to treat them, after cutting, like a young hedge?—If they are kept clean, and cut on each side, &c. without doubt they may become a good fence.

REMARKS

R E M A R K S
ON THE MANAGEMENT OF
F O R E S T - T R E E S

That are commonly planted in the Line with Quicks.

THE barbarous treatment they often meet with doth stare every traveller in the face. To see how they are cut and mangled by the unskilful labourer, who pays no attention to the plants, more than that of getting stakes from them to repair fences, &c. must appear exceedingly disagreeable to all lovers of planting. The principal part of forest-trees that are planted with the quicks, look like so many invalids wanting arms: The many stumps that are left by the persons that are allowed to cut off the branches, appear very ghastly, more particularly to persons that are acquainted with the structure of plants. Instead of the branches being cut off
from

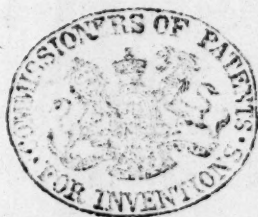
from the side where it can be best wanted, in a sloping manner, close and smooth to the bole of the tree, so as the wounds may heal up by being covered with bark, they mangle, shatter, and shiver the wound in such a manner with the axe, and at so great a distance from the bole, that instead of the wound they make ever healing, as it would do if properly cut, it becomes morbid; and the mangled stump they leave, is like a tube, or pipe, which conveys the morbid matter into the body of the tree in such a manner, as when cut for use, is often found not much more than half the value it ought to have been.

IF these few hints be just, would it not be advisable for gentlemen to use means to prevent the having their trees treated in such a manner, so as to render them of so little value, and so disagreeable in appearance to all lovers of improvement?

THIS subject would naturally lead me into a larger field, respecting the improper treatment
of

of forest-trees in general, such as pruning and thinning them at proper seasons, &c. which would be foreign to my present design.

IF the small attempt I have made, in offering a few hints respecting the management of quicks, &c. to the public, be acceptable, it may be a great means of inducing me to offer to them, in a short time, a few remarks on something of the kind more worthy their attention.



D OBSER-



OBSERVATIONS
ON THE
RAISING OF HEDGES:
IN A LETTER TO THE AUTHOR.

SIR,

IT was with particular satisfaction that I heard of your intention to publish an Essay on the rearing of quickset-hedges; which, I am very certain, will at this time be of considerable importance to those interested in the improvement of *commons*; and more especially, as we have very little, on that subject, wrote by any person who can be said to have combined a sufficient degree of practical knowledge with the result of a judicious theory of the growth of plants; and therefore, I think, that a work of

D 2

that

that kind will come with the utmost propriety from a person of your professional knowledge in the business of the *nursery* and *planting*.

To point out all the advantages arising from *good fences*, would take up too much room in the circumscribed limits of a letter.—Suffice it to say, that they are so highly essential towards the original improvement of wastes, when they inclose small fields and parcels of ground, by the *draining* and *shelter* they afford; by the great profit occurring to the owner in the grazing of a number of small inclosures in succession; by the bewitching appearance they give to the *poorest land*; by the great saving and satisfaction enjoyed by the proprietor in their preventing the trespass of cattle, and in obviating the uncertain and disagreeable expence of supporting *dry walls* and *dead fences*; that their speedy rearing up to a fencible and flourishing state, is indispensably the business of every rational improver.

Not-

NOTWITHSTANDING the great importance of flourishing fences to their proprietors, I am sorry to say, from repeated observations on, and a continued attention, for several years to, the progress of rearing hedges on *Bulbeck* and *Lancaster* commons, that there is scarcely *one* rood in *fifty*, at this time, in any likelihood of becoming an eligible fence; a disappointment arising either from the general and highly preposterous method of planting the *quicks*, or the neglect of care and attendance in the subsequent stages of their growth.

IN support of the above assertions, I beg leave to give a short detail of the method of planting *quicks*, as commonly practised; in order, as well to shew its absurdity, as to make the contrast with the more rational scheme I intend herein to lay down, the more obvious to the unexperienced planter.

THE method, in short, is this: The hedge-line being marked out, and a *cock-sod* or two laid a *very* few inches from the edge of the gutter,

gutter, a little of the best soil is spread behind, and thereon are laid sloping, the plants most *barbarously mangled* (*poor invalids!*) afterwards the cast is completed by throwing upon, and behind them, all the clay, &c. from the ditch; forming, when finished, on that side, a slope resembling the roof of an house, with the quicks planted along the *eaves*; on the top of which is placed a *stake and rice fence*, on *railing*, as easiest in point of expence.

Now, if long custom had not so far established this mode of planting, as to shut up the avenues of common sense, the absurdity of the practice would be glaringly evident; and,

First, How ridiculous to curtail so much of the roots, and to cut off the top! The fine ramifications of the former acting in conjunction with the latter in the reciprocation of the sap, on which the growth of the plant depends; and consequently, when these organs are injured, we must naturally expect the success of the work to be proportionally retarded; and, to use
a vul-

a vulgar phrase, *Who would ever think of cutting off two legs, the tail and ears of a pig when put up to feed, in order to its fattening?—Pshaw!*

Secondly, THE plants thus unnaturally crammed together, and imprisoned under a ponderous and impenetrable load of clay, &c. await the coming of Spring, when they undergo the vegetative *Orgasm*, and put forth shoots in proportion to the goodness of the soil in which they have been bedded, and according to the degree in which they have escaped the ignorant labourer's knife; but when the scanty pittance of food afforded them by the small quantity of soil in which they were planted is exhausted, then they become stationary, as all the rain that falls runs rapidly down the slope of the cast into the gutter, without affording the least degree of nourishment to the plants.

Thirdly, IN about a twelvemonth after planting, a part of the clay, &c. is taken from the slope close behind the quicks, in order to lighten them, *as it is called*; forming a sort of channel
for

for the reception of rain, and giving it time to penetrate to their roots: Where the soil is tolerably good, this does some service; but in many cases, the falling rain receives from the *barren-clay, chiver, &c.* composing the slope of the cast, an impregnation highly prejudicial to the roots of the plants: In some cases of *moorish* soil, I have observed whole roods of quicksets, in no very long time after planting, tumble into the ditch; owing to the vicissitudes of frost and rain decomposing the soil, and the winds blowing it quite away from the roots of the plants.

Lastly, MATTERS generally remain in this condition a twelvemonth or more; when the quicks are *scoured*, either from the bottom of the ditch, or have a *sod* set before them upon the *scarcement* left between the edge of the ditch and the cock-sod on which they were planted; at the same time cleaning and digging the earth a little behind them: And thus ends the most common process of raising quick-
set

set fences on the extensive commons before adverted to.

I SHALL now in a few words point out the absurdity of this mode of planting, and,

First, THE foolish practice of cutting the roots and top of the plants, so highly deranges their vegetative œconomy, that only very poor shoots can be expected, and those fewer and longer in appearing than from a perfect plant.

Secondly, THE sloping manner in which the *quicks* are placed upon the *cock-sod*, so far, contrary to the upright position in which plants of this kind grow when nature unbiaſſed does the buſineſs of a nurſe, is highly detrimental to the roots in ſending forth their numerous lateral ramifications, on the free extention of which, in ſearch of food, the vigorous growth of every plant depends ; moreover, the advantages of having ſhoots all around the *quick-set* is in a conſiderable degree forfeited, by loſing

E many

many of those, that, springing from the under-side, drop off, in their endeavour to gain the perpendicular direction unerringly impressed upon them by nature.

Thirdly, THE deep ditch or gutter on the one side draining off the natural moisture of the soil; and the great slope of the cast behind the plants throwing off the fostering showers of rain with rapidity, prevent them from receiving the best part of their food; and in many cases (as before-mentioned) whatever percolates through the barren clay, &c. &c. composing the *cast*, is impregnated with matters prejudicial to vegetable life; and therefore, unless in some circumstances peculiarly favourable, we seldom see, under such treatment, healthy or flourishing plants.

Fourthly, DEAD, or *stake and rice* fences, placed behind the plants, and too near them, stop the seeds of thistles, dandelion, &c. floating in the air; and by their shelter promote the vegetation of these, as well as of grasses, and noxious

ious weeds whose seeds have been lodged in the ground prior to the opening of the ditch ; and which by such a degree of warmth arrive at a state of luxuriance oftentimes destructive to the quicks, by choaking them ; or, at least, by growing so rank among them, that the lateral shoots near the ground are prevented from growing, and the hedge becomes unsightly, and not fencible, on account of its being so raw and thin at the bottom.

Fifthly, I SHALL just take notice of the subsequent *scouring* which is generally raised from the bottom of the ditch, and where we commonly see the fods with the rich adhering surface-soil applied where only a small share of its vegetable food falls within reach of the quicks ; and the *crumbs* which are trimmed about their stems are mostly of the barren under *stratum*, and equally destructive, or at least injurious with the cover laid upon them when first planted.

Lastly, THERE still remains a most capital oversight to be taken notice of, and that is, the little attention paid to the irregularity in the sizes, and healthy state of the quicks when planted; and owing to these circumstances, in conjunction with those absurd modes of treatment already enumerated, we seldom see a good hedge raised in a great number of years; unless in rich soils and warm situations, such as seldom fall to the lot of those plants where good fences are chiefly wanted.

THAT I have not exaggerated in the above observations, I appeal to any unprejudiced person whose occasions may afford him an opportunity of casting his eye on the extensive commons of *Bulbeck* and *Lanchester*.

I CANNOT better apologise for the [prolixity of this letter (the subject being of considerable importance) than by hastening to point out,

A rational method of planting QUICKSETS, and of rearing them up to useful and ornamental FENCES.

First, THE line intended for the fence should be *staked* out, and two or three *sod-broads* pared off along it, laying the sods on one side; then the pared ground must be trenched, *bottoming* the trench with the *sods*; a sufficient drill must then be opened along the middle of this *strip* of loose earth, and the quicksets (which should be strong and of a regular size) planted *upright* therein, closing the earth carefully to and about their roots without *mangling* them with the *knife*: Or, if time will permit, it would be much better to do the business of preparation before winter, laying the soil taken out of the trench on the one side of it, and the pared sods on the other side; leaving all to receive the *meliorating* effects of the *Winter-weather*: Early in the Spring the work of planting should commence, by laying the sods at the bottom of the trench, as before, and a small quantity of the best of the soil upon them; the

quicks

quicks should then be placed in an *upright position* therein, without cutting off either root or branch, unless where they interfere and cross each other (which will always be very obvious to the planter); the remainder of the earth must then be filled into the trench, and properly settled among the roots of the plants.

Secondly, AFTER being thus planted, the proprietor may secure them by any kind of *cast* or *fence* suitable to boundary or subdivision hedges, or as the necessity of drains may suggest: only leaving a proper space on each side of the plants, for the purpose of sufficiently digging and cleaning the ground from time to time, and trimming the fence:—This loosened open space will also be very fit for the reception of young trees, which I shall say nothing farther about, than that they add much beauty to a fence.

It would be highly absurd, in me, to offer any thing about the subsequent management of the young fence, as you will have handled that matter

matter at large in the work; and shall now conclude with a few observations on the propriety of this *very simple* method of planting, which, if properly attended to, will be of great advantage to that small, but highly respectable part of mankind, the spirited *improvers of commons*, and planters of trees and fences.

As the most successful *physicians* have been the most diligent observers of the operations of nature in the *animal œconomy*, so will the success of planting depend on the judicious attention of the planter to the flourishing growth of vegetables in a *natural state*, where the plant has room to extend its roots in the *surface-soil*, and where the *too* busy hand of the pruner has had little access.

Now in this mode of planting I am only recommending what is exceedingly well known both in the *field* and *garden* culture, that is, the *absolute* necessity for a proper space for plants to extend the *fine* ramifications of their roots in search of *vegetable food*, and the keeping of
that

that space free from weeds, and in a proper state of *tilth* and *openness*, for the reception of that food from the atmosphere, in a quantity adequate to the support of the plants in a vigorous state of growth.

I READILY allow that this method of planting will be attended with more *original expence* than the common method; but when it is considered that very little or no *scouring*, but only *digging* and *cleaning*, would be necessary in the subsequent treatment of the fence, I presume that the whole expence of having a beautiful and useful fence would be very moderate.

THE making of deep *ditches* or *gutters* too near a row of quicksets as commonly practised I have already reprobated, as well as the closeness of the *casts* or *dead-fences*; I shall just observe that no fences, for the purpose of rearing or nursing of quicks, should be raised or made so as to shade the plants too much from the *sun*.

I CANNOT help noticing a circumstance that I have often attended to, that is, the planting
of

of quicksets exposed to the public highways without any *kind* of *fence* before them; where they are either trampled down by the cattle, or the young shoots and leaves become a *scanty* article of *forage* for *marauding* parties of the *mug-cavalry*: 'Tis very strange that quicksets under this predicament should be so shamefully neglected! I think it would be better not to plant them at all, than be guilty of such absurdity; for where a fence is intended to be raised in *earnest*, that object cannot be obtained without both care and expence.

I SHALL conclude, with wishing you success in your publication, and a hearty wish, that the business of planting and raising fences may become, not only more an object deserving of public attention, but that the methods of obtaining that end may be more successful.

And am, Sir,

Your very humble servant,

BUSHBLADES-COLLIERY,
February 5, 1785.

JOHN BUDDLE.

18/2/74



E R R A T A.

Page 30, 9 lines from top, for *on*, read *or*.
Page 39, 9 lines from bottom, for *extended*, read *extend*.



610

